

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-40 are pending in the application. Claims 41-74 have been canceled without prejudice or disclaimer of the subject matter therein. Claims 1 and 40 are independent claims.

Claim Objections

Claims 1-40 and 48 are objected to by the Office. Applicant has amended and/or canceled the claims specifically indicated by the Office as including minor informalities. Applicant respectfully submits that the amendments to the claims remedy the minor informalities. The Office is requested to withdraw the claim objection in view of the actions taken by the Applicant.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-74 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicant respectfully traverses the rejection.

For those claims canceled hereby, the rejection is now considered moot.

The remaining claims, as least the remaining independent claims, have been amended to recite subject matter deemed as being Office acceptable as sufficient to overcome non-statutory subject matter rejections of the type asserted by the Office. Accordingly, the Office is respectfully requested to withdraw the rejection.

Claim Rejections Under 35 U.S.C. § 112

Claims 41-51 and 74 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This rejection is moot due to the cancellation of the rejected claims. Accordingly, the Office is respectfully requested to withdraw the rejection.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-3, 5-12, 14, 15, 18, 21-25, 27-40 and 74 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,157,927 to Schaefer et al. (hereinafter "Schaefer"). Applicant respectfully traverses the rejection.

Amended independent claim 1 recites:

Interfaces, stored on one or more computer-readable media, to be called on kernel transaction management objects, comprising:

application program interfaces (APIs) to implement operations on a kernel transaction object (TX), at least one TX representing a transaction and being accessible to at least one process participating in the transaction;

APIs to implement operations on a kernel resource management object (RMO), at least one RMO representing a relationship between a TX associated with a corresponding transaction manager and at least one resource that participates in the transaction; and

APIs to implement operations on a kernel enlistment (EN) object, at least one EN representing a relationship between a resource manager and the transaction.

Applicant has hereby clarified the functionality of the APIs recited in original claim 1. Applicant respectfully submits that the subject matter of claim 1

is not disclosed by the Schaefer patent. The Applicant's reasoning is provided in the following.

The Office maintains that the Schaefer disclosed ITransaction Interface (hereinafter "transaction interface") functions in the same manner as the kernel transaction object recited in claim 1. The Applicant respectfully disagrees.

According to Schaefer, the transaction interface "represents the transaction for which that MTS component is attempting to perform work." Schaefer defines the "MTS component" as being a Microsoft Transaction Server component. The indicated disclosure of the Schaefer patent shows that in MTS component may perform work for a transaction, but this is not the same as "representing a transaction and being accessible to at least one *process participating in the transaction*." (Emphasis added; see claim 1.) To the contrary, the MTS component disclosed by Schaefer does not represent a process participating in the transaction. Instead, the MTS component simply does work for a transaction. As far as the transaction interface of Schaefer is concerned, the interface is simply a representation of an actual transaction. There is nothing in Schaefer that indicates that the transaction interface has the functionality of "representing a transaction and being accessible to at least one *process participating in the transaction*." (Emphasis added; see claim 1.)

The Office further maintains that the Schaefer disclosed IResourceManager Interface (hereinafter "resource manager") functions in the same manner as the kernel resource management object recited in claim 1. The Applicant respectfully disagrees.

According to Schaefer, the resource manager a Resource Manager object 108 provides an Enlist method, a Reenlist method, and a ReenlistmentComplete

method. The Enlist method is invoked by a resource manager 70 to enlist a particular branch of a global transaction with a Distributed Transaction Coordinator 56. The Reenlist method is invoked by the resource manager 70 to reenlist with the Distributed Transaction Coordinator 56, for example, after a failure. The ReenlistmentComplete method is invoked during recovery after all in-doubt transaction branches have been recovered. (Schaefer patent; See col. 15, lines 51-62.) However, functionality described in association with the Schaefer resource manager does not disclose the functionality associated with the kernel resource management object recited in claim 1. In particular, Applicant is unable to find anything that discloses that the resource manager of the Schaefer patent is capable of "representing a relationship between a TX associated with a corresponding transaction manager and at least one resource that participates in the transaction." (See claim 1.)

For the above-reasons, the Applicant requests the Office to reconsider and withdraw the 35 U.S.C. § 102(b) rejection.

Dependent claims 2-3, 5-12, 14, 15, 18, 21-25, and 27-39 depend from claim 1. The rejection with regard to these claims should be withdrawn by virtue of the dependency. Moreover, these claims recite features that, when taken together with those of claim 1, are not disclosed by Freeman.

Amended independent claim 40 recites:

An apparatus for implementing a transaction, comprising:
a kernel transaction object (TX) to represent a transaction and being accessible to at least one process participating in the transaction;

a kernel resource manager object (RMO) to represent a relationship between a TX associated with a corresponding transaction manager and at least one resource that participates in the transaction; and

a kernel enlistment object (EN) to represent a relationship between a resource manager and the transaction,

wherein two-phase commit processing is executed by calling APIs on the TX, the RMO, and the EN.

As discussed above, Schaefer does not disclose at least the following limitations of claim 40: "a kernel transaction object (TX) to represent a transaction and being accessible to at least one process participating in the transaction." Moreover, Schaefer does not disclose "a kernel resource manager object (RMO) to represent a relationship between a TX associated with a corresponding transaction manager and at least one resource that participates in the transaction."

Since Schaefer does not disclose at least the above discussed elements of the rejected claim, the patent document cannot be said to anticipate independent claim 40. Therefore, Applicant respectfully requests that the 35 U.S.C. § 102(b) rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 4, 16, 17, 20 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer in view of Klein et al., U.S. Patent No. 6,728,958 (hereinafter "Klein"). **Claims 13 and 19** stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer in view of Lejeune et al., U.S. Patent No. 6,101,527 (hereinafter "Lejeune"). **Claims 41-48 and 50-73** stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer in view of Greene et al., U.S. Patent No. 6,922,685 (hereinafter "Greene"). **Claim 49** stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer and Greene, and further in view of Choy et al. U.S. Patent No. 6,321,374. Applicant respectfully traverses these rejections.

Claims 4, 16, 17, 20 and 26 depend from claim 1 and hence incorporate the features of claim 1. As noted above, Schaefer fails to disclose a transaction interface having the functionality of "representing a transaction and being accessible to at least one *process participating in the transaction*" as required by claim 1. Further, Schaefer does not disclose "APIs to implement operations on a kernel resource management object (RMO), at least one RMO representing a relationship between a TX associated with a corresponding transaction manager and at least one resource that participates in the transaction." as required by claim 1. Additionally, Schaefer does not teach or suggest or even hint at these features. The added teachings of Klein do not remedy the shortcomings. That is, the combination of Schaefer and Klein fails to teach or suggest the interfaces of claim 1, from which claims 4, 16, 17, 20, and 26 depend. Moreover, these dependent claims recite features that, when taken together with those of claim 1, are not rendered obvious by the combination of Schaefer and Klein.

Claims 13 and 19 depend from claim 1 and hence incorporate the features of claim 1. As noted previously, Schaefer does not disclose, teach, or suggest features of claim 1. Lejeune fails to add any teachings to the deficiencies of Schaefer. Accordingly, the combination of Schaefer and Lejeune fails to teach or suggest the interfaces of claim 1, from which claims 13 and 19 depend. Moreover, these dependent claims recite features that, when taken together with those of claim 1, are not rendered obvious by the combination of Schaefer and Lejeune.

The remaining 35 U.S.C. § 103(a) rejections are moot in view of the cancellation, without prejudice, of claims 41-74.

In view of the above, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

Conclusion

In accordance with the foregoing remarks, Applicant believes that the pending claims are allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the Applicant at the telephone number provided below.

Respectfully Submitted,

Dated: Sept 10, 2007

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